

Attachment 4.2 –Supporting Documents

Budget

Project B – Ash Slough Arundo Eradication and Sand Removal Project

Madera Region – IRWM Implementation Grant Application

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**Attachment 4.2, Chowchilla Water District Estimates for Arundo
Spraying and Mulching**

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CHOWCHILLA WATER DISTRICT
PO BOX 905
CHOWCHILLA, CALIFORNIA 93610

COST ESTIMATE

BILL TO:	Madera County Flood Control & Water Conservation Agency	DATE	12/1/2010
		CONTRACT NO.	
		STA. NO.	

DESCRIPTION OF WORK: **YEAR 1 & 2**

Spray 1 mile of Slough on both sides with herbicide to control Arundo Donax in 10 days

Assume 2 man crew spraying 50 gallons of Glyphosate in 10% solution per day

Using drift retardant, blue dye, water conditioner & penetrant

LABOR		REGULAR TIME			OVER TIME			TOTAL
		HRS	RATE	AMOUNT	HRS	RATE	AMOUNT	
Maintenance	Man	80	\$ 21.00	\$ 1,680.00		\$ 31.50	\$ -	\$ 1,680.00
Maintenance	Man	80	\$ 21.00	\$ 1,680.00		\$ 31.50	\$ -	\$ 1,680.00
			\$ -	\$ -		\$ -	\$ -	\$ -
				\$ -		\$ -	\$ -	\$ -

SUBTOTAL LABOR			\$ 3,360.00
OVERHEAD SURCHARGE		91.00%	\$ 3,057.60
TOTAL LABOR			\$ 6,417.60

EQUIPMENT		HRS	RATE	AMOUNT
EQUIP NO.	DESCRIPTION			
	Tractor	80	\$ 30.00	\$ 2,400.00
	Water Trailer with Sprayer	80	\$ 15.00	\$ 1,200.00
			\$ -	\$ -
				\$ -
				\$ -

TOTAL EQUIPMENT			\$ 3,600.00
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MATERIAL				
DESCRIPTION	UNIT	QUANTITY	PRICE	AMOUNT
		X		
Glyphosate 10% solution	gallon	700 X	\$ 20.00	\$ 14,000.00
Blue Dye	gallon	21 X	\$ 26.00	\$ 546.00
Water Conditioner	gallon	43 X	\$ 21.00	\$ 903.00
Drift Retardant	ounce	700 X	\$ 0.75	\$ 525.00
Surfactant - Penetrant	gallon	35 X	\$ 15.00	\$ 525.00
		X	\$ -	\$ -
		X	\$ -	\$ -
		X	\$ -	\$ -
		X	\$ -	\$ -
		X	\$ -	\$ -
		X	\$ -	\$ -

SUBTOTAL MATERIAL			\$ 16,499.00
MATERIAL TAX		0.0775	\$ 1,278.67
TOTAL MATERIAL			\$ 17,777.67
TOTAL LABOR			\$ 6,417.60
TOTAL EQUIPMENT			\$ 3,600.00
SHIPPING			\$ -
TOTAL BILLING			\$ 27,795.27

CHOWCHILLA WATER DISTRICT
PO BOX 905
CHOWCHILLA, CALIFORNIA 93610

COST ESTIMATE

BILL TO: Madera County Flood Control & Water DATE 12/1/2010
Conservation Agency CONTRACT NO. _____
STA. NO. _____

DESCRIPTION OF WORK:

Shred 1 mile of Slough on both sides in 96 hours

Assume 1 man crew

LABOR		REGULAR TIME			OVER TIME			TOTAL
		HRS	RATE	AMOUNT	HRS	RATE	AMOUNT	
Maintenance	Man	96	\$ 21.00	\$ 2,016.00		\$ 31.50	\$ -	\$ 2,016.00
			\$ -	\$ -		\$ -	\$ -	\$ -
			\$ -	\$ -		\$ -	\$ -	\$ -
			\$ -	\$ -		\$ -	\$ -	\$ -
SUBTOTAL LABOR								\$ 2,016.00
SURCHARGE 91.00%								\$ 1,834.56
TOTAL LABOR								\$ 3,850.56

EQUIPMENT		HRS	RATE	AMOUNT
EQUIP NO.	DESCRIPTION			
	Excavator with shredder head	96	\$ 120.00	\$ 11,520.00
			\$ -	\$ -
			\$ -	\$ -
				\$ -
				\$ -
TOTAL EQUIPMENT				\$ 11,520.00

MATERIAL				
DESCRIPTION	UNIT	QUANTITY	PRICE	AMOUNT
		X		
		X		\$ -
		X		\$ -
		X		\$ -
		X		\$ -
		X		\$ -
		X	\$ -	\$ -
		X	\$ -	\$ -
		X	\$ -	\$ -
		X	\$ -	\$ -
		X	\$ -	\$ -
		X	\$ -	\$ -
SUBTOTAL MATERIAL				\$ -
MATERIAL TAX 0.0775				\$ -
TOTAL MATERIAL				\$ -
TOTAL LABOR				\$ 3,850.56
TOTAL EQUIPMENT				\$ 11,520.00
SHIPPING				\$ -
TOTAL BILLING				\$ 15,370.56

CHOWCHILLA WATER DISTRICT
PO BOX 905
CHOWCHILLA, CALIFORNIA 93610

COST ESTIMATE

BILL TO: Madera County Flood Control & Water DATE 12/1/2010
Conservation Agency CONTRACT NO. _____
STA. NO. _____

DESCRIPTION OF WORK:

Hand cut and spray around sensitive vegetation for 1 mile on both sides in 80 hours

Assume 2 man crew

LABOR		REGULAR TIME			OVER TIME			TOTAL
		HRS	RATE	AMOUNT	HRS	RATE	AMOUNT	
Maintenance	Man	80	\$ 21.00	\$ 1,680.00		\$ 31.50	\$ -	\$ 1,680.00
Maintenance	Man	80	\$ 21.00	\$ 1,680.00		\$ 31.50	\$ -	\$ 1,680.00
			\$ -	\$ -		\$ -	\$ -	\$ -
				\$ -		\$ -	\$ -	\$ -
SUBTOTAL LABOR								\$ 3,360.00
SURCHARGE 91.00%								\$ 3,057.60
TOTAL LABOR								\$ 6,417.60

EQUIPMENT		HRS	RATE	AMOUNT
EQUIP NO.	DESCRIPTION			
	Pickup	80	\$ 5.00	\$ 400.00
	Hand sprayer	80	\$ 1.00	\$ 80.00
			\$ -	\$ -
				\$ -
				\$ -
TOTAL EQUIPMENT				\$ 480.00

MATERIAL				
DESCRIPTION	UNIT	QUANTITY	PRICE	AMOUNT
		X		
Glyphosate 10% solution	gallon	70 X	\$ 20.00	\$ 1,400.00
Blue Dye	gallon	2 X	\$ 26.00	\$ 52.00
Water Conditioner	gallon	4 X	\$ 21.00	\$ 84.00
Drift Retardant	ounce	70 X	\$ 0.75	\$ 52.50
Surfactant - Penetrant	gallon	4 X	\$ 15.00	\$ 60.00
		X	\$ -	\$ -
		X	\$ -	\$ -
		X	\$ -	\$ -
		X	\$ -	\$ -
		X	\$ -	\$ -
		X	\$ -	\$ -
SUBTOTAL MATERIAL				\$ 1,648.50
MATERIAL TAX 0.0775				\$ 127.76
TOTAL MATERIAL				\$ 1,776.26
TOTAL LABOR				\$ 6,417.60
TOTAL EQUIPMENT				\$ 480.00
SHIPPING				\$ -
TOTAL BILLING				\$ 8,673.86

CHOWCHILLA WATER DISTRICT
PO BOX 905
CHOWCHILLA, CALIFORNIA 93610

COST ESTIMATE

BILL TO: Madera County Flood Control & Water DATE 12/1/2010
Conservation Agency CONTRACT NO. _____
STA. NO. _____

DESCRIPTION OF WORK: **YEAR 3**

Spray 1 mile of Slough on both sides with herbicide to control Arundo Donax in 5 days

Assume 2 man crew spraying 50 gallons of Glyphosate in 10% solution per day

Using drift retardant, blue dye, water conditioner & penetrant

LABOR		REGULAR TIME			OVER TIME			TOTAL
		HRS	RATE	AMOUNT	HRS	RATE	AMOUNT	
Maintenance	Man	40	\$ 21.00	\$ 840.00		\$ 31.50	\$ -	\$ 840.00
Maintenance	Man	40	\$ 21.00	\$ 840.00		\$ 31.50	\$ -	\$ 840.00
			\$ -	\$ -		\$ -	\$ -	\$ -
				\$ -		\$ -	\$ -	\$ -

SUBTOTAL LABOR \$ 1,680.00
OVERHEAD SURCHARGE 91.00% \$ 1,528.80
TOTAL LABOR \$ 3,208.80

EQUIPMENT		HRS	RATE	AMOUNT
EQUIP NO.	DESCRIPTION			
	Tractor	40	\$ 30.00	\$ 1,200.00
	Water Trailer with Sprayer	40	\$ 15.00	\$ 600.00
			\$ -	\$ -
				\$ -
				\$ -

TOTAL EQUIPMENT \$ 1,800.00

MATERIAL				
DESCRIPTION	UNIT	QUANTITY	PRICE	AMOUNT
		X		
Glyphosate 10% solution	gallon	350 X	\$ 20.00	\$ 7,000.00
Blue Dye	gallon	10 X	\$ 26.00	\$ 260.00
Water Conditioner	gallon	22 X	\$ 21.00	\$ 462.00
Drift Retardant	ounce	350 X	\$ 0.75	\$ 262.50
Surfactant - Penetrant	gallon	18 X	\$ 15.00	\$ 270.00
		X	\$ -	\$ -
		X	\$ -	\$ -
		X	\$ -	\$ -
		X	\$ -	\$ -
		X	\$ -	\$ -
		X	\$ -	\$ -

SUBTOTAL MATERIAL \$ 8,254.50
MATERIAL TAX 0.0775 \$ 639.72
TOTAL MATERIAL \$ 8,894.22
TOTAL LABOR \$ 3,208.80
TOTAL EQUIPMENT \$ 1,800.00
SHIPPING \$ -
TOTAL BILLING \$ 13,903.02

Attachment 4.2, Live Oak Consultant Estimates

a. 1602 Permit Survey and Monitoring

b. 401-404 Permits and Monitoring

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LIVE OAK ASSOCIATES, INC.

an Ecological Consulting Firm

December 6, 2010

Elissa Brown
32485 Road 228
North Fork, CA 93543

RE: Budget Estimate for Pre-construction Surveys, Arundo Mulching for Five Mile Reach of Ash Slough

Dear Elissa:

As we discussed I am providing you a rough budget estimate on behalf of Live Oak Associated, Inc. (LOA) to conduct pre-construction surveys and monitoring for Arundo mulching along approximately five miles of Ash Slough extending southwest of Chowchilla. This estimate includes time for the following; 1) review existing information, and coordinate and manage the project; 2) one long week (10 hour days) for two biologists to conduct kit fox, elderberry, and nesting bird and raptor surveys; 3) prepare maps with GPS data collected during the pre-construction survey of all potential kit fox burrows, elderberries, and active bird nests located during surveys; 4) meet and correspond with CDFG regarding survey results and monitoring requirements; 5) conduct endangered species training for the mulching crew; 6) conduct 9 full days or 18 half days of nest and elderberry monitoring during mulching activities should CDFG require it; and 7) prepare a letter report detailing our survey and monitoring methods, findings, and conclusions.

Items 1-7 would be performed on a time and charges not-to-exceed basis as follows:

Task 1 Review and Coordinate	\$ 1,200.00
Task 2 Pre-construction Surveys	\$ 12,000.00
Task 3 Map Preparation	\$ 2,800.00
Task 4 CDFG Meeting and Correspondence	\$ 1,750.00
Task 5 Endangered Species Training	\$ 700.00
Task 6 Monitoring	\$ 8,750.00
Task 7 Letter report	\$ 2,800.00
Total Budget Not to Exceed:	\$30,000.00

Please contact me if you have any questions.

Sincerely,

Austin Pearson
Director of Ecological Services



LIVE OAK ASSOCIATES, INC.

an Ecological Consulting Firm

December 17, 2010

Elissa Brown, Project Coordinator
Yosemite-Sequoia Resource Conservation and Development Council
PO Box 415
North Fork, California 93643

Subject: General Scope and Budget for Biological Permitting and Monitoring for the Ash Slough Sand/Arundo Removal Project

Dear Ms. Brown:

Live Oak Associates, Inc. (LOA) appreciates this opportunity to provide you with a general cost estimate for the Ash Slough Sand/Arundo Removal Project. This project will increase the flood flow capacity of Ash Slough in Madera County, part of the Chowchilla River system. Ash Slough flows next to the city of Chowchilla and there is significant flood hazard from the lack of flood flow capacity from an infestation of *Arundo* and from build-up of sediment in the channel. The project involves removing an *Arundo* infestation and removal of 2-3 feet of sand in the channel. The project will take place on 5 miles of slough, disturbing an estimated 90 acres of slough channel. It is expected that the channel maintenance activities will take place over 3 years.


As we understand, a streambed alteration agreement is already in place. Once the remaining supporting documents are in place (i.e. biological evaluation, wetland delineation, and mitigation plan if necessary), then the permit applications should be relatively simple. Cost range could be \$6,000-8,000 assuming all the supporting documentation is already in place. The 404 permit does not have an application fee. The 401 permit has an application fee based on the linear feet or area in acres, whichever cost is greater. In either case, the maximum of \$40,000 is met for this project.

LOA can provide construction monitoring as required by the 401 and 404 permits. Typically LOA budgets a minimum of one site visit per week during construction. Budgeting \$1,000 per week for monitoring and an additional \$6,000 for report writing should cover the annual costs, assuming neither permit requires more than one monitoring visit per week.

LOA does not have the experience or expertise to offer services for creation or monitoring of the SWPPP.

These costs are rough and do not include costs of preparation of supporting documents (biological evaluation, wetland delineation, mitigation plan if necessary), though LOA can provide cost estimates to complete these documents if requested. There are caveats and variables that would affect costs for each of these projects. Most notably whether or not CEQA (i.e. biological evaluation) or NEPA, if federal funds are involved, are complete and whether or not the Army Corps (404 permit) will require formal consultation with the U.S. Fish and Wildlife Service (i.e. preparation of a biological assessment and possible need of a biological opinion from the Service) because of impacts to habitat for the Valley elderberry longhorn beetle, aestivation habitat for the California tiger salamander (CTS), etc. potentially located in the project areas.

Sincerely

A handwritten signature in black ink that reads "Wendy C. Fisher". The script is cursive and fluid, with the first name "Wendy" being more prominent than the last name "Fisher".

Wendy Fisher
Senior Project Manager/Plant Ecologist/Certified Arborist

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Attachment 4.2, Arundo Eradication Monitoring Cost Estimates

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**Chowchilla Red Top
Resource Conservation District
Post Office Box 531
Chowchilla, CA 93610**



December 16, 2010

To Whom It May Concern:

The Chowchilla Red Top Resource Conservation District fully endorses the Madera County's efforts and application for the Arundo Eradication Project funding. It is our mission to provide education and technical guidance in sustainable resource conservation and management to our communities and landowners and managers both current and future. We feel that Madera County shares our understanding of the Arundo infestation issue in our sloughs and has made it their priority as it has been our first priority for many years.

The Chowchilla Red Top Resource Conservation District has provided resources to help educate local landowners and agencies about the dangers of Arundo. We have provided training programs and materials to past efforts, even above that we will also supply an individual to establish the baseline for the treatment and assist in the post-treatment monitoring. We estimate this to be a total of 536 hours which is a total of \$10,680.00. See below:

Year 1: Establish Baseline: Total Hours 136

Task	Dollars * hours	Cost
Training in data collection protocol	\$20*8	\$160
	\$15*8	\$120
Data Collection	\$20*40	\$800
	\$15*40	\$600
Data Entry	\$20*40	\$800
Expenses		\$200
TOTAL		\$2,680.00

Year 2-5 Post-Treatment* Monitoring (Once Annually): Total Hours 400

	Year 2	Year 3	Year 4	Year 5	Cost
Task	Dollars * hours	Dollars * hours	Dollars * hours	Dollars * hours	
Monitor	\$20*40	\$20*40	\$20*40	\$20*40	\$3,200
	\$15*40	\$15*40	\$15*40	\$15*40	\$2,400
Data Entry	\$20*20	\$20*20	\$20*20	\$20*20	\$1,600
Expenses	\$200	\$200	\$200	\$200	\$800
TOTAL					\$8,000.00

* This does not include a "Treatment Log" required for adherence to data collection protocol.

ESTIMATED TOTAL HOURS...536
ESTIMATED TOTAL COST...\$10,680.00

Thank you for your consideration of this proposal. We hope you will provide funding for us to take care of this very serious problem!

Sincerely,



Norman Kuhr
Chairperson
Chowchilla Red Top Resource Conservation District

**Attachment 4.2, Landowner Notification Cost Estimate and Donation
Letter from Chowchilla-Red Top Resource Conservation District**

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**Chowchilla Red Top
Resource Conservation District
Post Office Box 531
Chowchilla, CA 93610**



December 16, 2010

To Whom It May Concern:

We would like to convey our enthusiastic support of the Arundo Eradication Project possibly funded by the DWR Implementation application submitted by Madera County. The problem of Arundo infestation in our sloughs has been our first priority for many years. We are very happy that the County is seeking funding to remove the Arundo and to involve the other local agencies and stakeholders. It is our mission to provide education and technical guidance in sustainable resource conservation and management to our communities and landowners and managers both current and future and with the Arundo removal as top priority, we are ready to do whatever it takes.

The Chowchilla area has thirty-six miles of Arundo in its waterways; 11 miles in the Ash Slough alone. It is extremely important that we do something about this infestation because the result of doing nothing to control and eradicate the Arundo is equal to establishing a fire hazard, a major flood channel obstruction, reduction of usable habitat, and continuing excessive extraction of valuable groundwater. Initial costs to develop new sources of groundwater start at \$500,000 and annual costs for pumping, operation and maintenance average \$100,000 per year.

The Chowchilla Red Top Resource Conservation District has provided resources to help educate local landowners and agencies about the dangers of Arundo. We have provided training programs and materials to past efforts, and will continue to provide them to the proposed project. We will be working with our Watershed Coordinator to assist with outreach to the adjacent landowners. The Watershed Coordinator has been working to support Arundo Eradication efforts in the region and has a contact list of adjacent landowners for notification. She has worked on other educational efforts in this area and based her costs on those efforts. We figure that the costs of this effort will be \$600/year for the outreach provided by our organization and \$200/year estimated for printing and postage, which is being charged to the grant request. This gives a total of our contribution, through the work of our Watershed Coordinator, \$1,800.00 total for the three year project.

Thank you for your consideration of this proposal. We hope you will provide funding for us to take care of this very serious problem!

Sincerely,

Norman Kuhr
Chairperson
Chowchilla Red Top Resource Conservation District

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**Attachment 4.2, Letters from Entities Willing to Remove Sand on In-Kind
Basis**

a. Letter from Double DJ Farms

b. Letter from Chowchilla Water District

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**Double DJ Farms
Edgemar Farms
14768 Avenue 27
Chowchilla, CA 93610**

To: Madera County Resource Management Agency
Date: December 22, 2010
Subject: Letter of intent to remove sand from Ash Slough

To Whom It May Concern:

This letter states my intent to remove sand from the Ash Slough channel if it becomes available through the County's Integrated Regional Water Management Implementation Grant to eradicate Arundo and remove sand from Ash Slough. It is understood that the County will obtain the necessary permits for this sand removal at the County's cost, and will also perform all necessary monitoring and other compliance activities. If necessary, I will enter into a sub-agreement with the County to do work under these permits. I understand that no costs will be charged to me related to such sub-agreement.

I also know from my discussions with my neighbors, other landowners along the Ash Slough, that they are willing to do the same under the same conditions. We all understand as a community and as responsible landowners that this will assist in improving the flood flows in Ash Slough, which will reduce the flood hazard to our properties adjacent to the slough. This is a benefit to us as well since we can use of the sand for dust control on our roads.

My intention is to remove 58,608 cubic yards (or 87,990 tons) of sand. At the standard cost of \$5/cubic yard to remove sand from one area and transport it to another for use or stockpiling, the value of this work is \$293,886.00. I am certain that the entire remaining amount of available sand will be removed on an in-kind basis by my neighbors and by the Chowchilla Water District.

My intention is to use this sand to reduce dust from the farm roads on my property in order to comply with Air Quality guidelines. I estimate that this sand removal will reduce dust by 70% from 15 miles of roadway for five or more years. We re-sand our roads every Fall before the rains and this should be enough for at least five but possibly more years.

I appreciate this opportunity and support the County's efforts to improve the flood flow capacity on Ash Slough.

Signed:



Edgar De Jager
Double DJ Farms
Edgemar Farms
14768 Avenue 27
Chowchilla, CA 93610

Chowchilla Water District

*Post Office Box 905 ♦ 327 S. Chowchilla Blvd. ♦ Chowchilla, CA 93610
Phone (559) 665-3747 ♦ Fax (559) 665-3740 ♦ Email dwelch@cwdwater.com*

Board of Directors

Dan Maddalena ♦ Michael Mandala ♦ Vince Taylor ♦ Kole M. Upton ♦ Mark Wolfshorndl

December 3, 2010

Madera County Resource Management Agency
Attn: Glenn Eastes, Madera County Engineer
2037 W. Cleveland Avenue
Madera, CA 93637

Subject: Letter of intent to remove sand from Ash Slough

Dear Mr. Eastes:

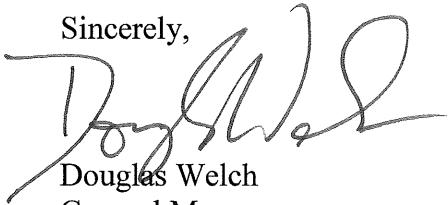
This letter states the intent of the Chowchilla Water District (CWD) to remove sand from the Ash Slough channel if it becomes available through the County's Integrated Regional Water Management Implementation Grant to eradicate Arundo and remove sand from Ash Slough. It is understood that the County will obtain the necessary permits for this sand removal at the County's cost, and will also perform all necessary monitoring and other compliance activities. If necessary, CWD will enter into a sub-agreement with the County to do work under these permits. It is understood that no costs will be charged to CWD related to such sub-agreement.

CWD will commit to removing clean sand suitable for sanding canal bank roads. Our estimate for the market value of such sand removal is \$5.00 per cubic yard.

The Chowchilla Water District will spread the sand on its canal bank roads in order to reduce dust and improve air quality in the San Joaquin Valley.

CWD appreciates this opportunity and supports the County's efforts to improve the flood flow capacity on Ash Slough.

Sincerely,



Douglas Welch
General Manager